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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,522	10/09/2001	Robert K. Hollenbeck	03-DV-7115	7288

7590

10/24/2003

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EXAMINER

LE, DANG D

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/974,522	Applicant(s) HOLLENBECK ET AL.	
	Examiner Dang D Le	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 2-8 and 17-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 9, 10 and 14-16 is/are rejected.
- 7) ☒ Claim(s) 11-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/11/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0102</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 2-8 and 17-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected groups, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper dated 1/21/03.

2. Applicant's election with traverse of claims 1 and 9-16 in Paper dated 1/21/03 is acknowledged. The traversal is on the ground(s) that claims 2-8 and 17-19 cannot be distinct from claim 1 because they depend on claim 1. Although the examiner indicated that groups I and II should be combined during the telephone interview, a further consideration reveals that the argument is not found persuasive because the aforementioned claims are directed to the structure of a permanent magnet rotor, which can be considered as a different species shown in group II with claims 20-25. Between groups I and II, claim 1 is generic and if allowed, the restriction to the dependent claims will be withdrawn and those claims will then be rejoined.

Regarding the applicant's argument to group III, even if the method claims cannot be done by hand, the method claims involve steps requiring a different search in class 29, subclass 596.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. (5,808,390) in view of Horng et al. (6,441,531).

Regarding claim 1, Miyazawa et al. show an electric motor comprising:

- A stator including a stator core (12, Figure 19), a first and second lamination (11, 16), a flux tube (17) extending therethrough, and windings (15) on said stator core;
- A rotor (2) including a hub having an inner surface, a magnet (5) coupled to said hub inner surface, and a shaft (3) received in said stator core for rotation of said rotor relative to said stator about a longitudinal axis of said shaft; and
- A housing (920) adapted to support said stator and said rotor.

Miyazawa et al. do not show the lamination stacks.

Horng et al. use the laminations stacks for the purpose of reducing eddy current.

Since Miyazawa et al. and Horng et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the stator yoke with laminations stacks as taught by Horng et al. for the purpose discussed above.

Regarding claims 10 and 15, it is noted that Miyazawa et al. also show all of the limitations of the claimed invention.

6. Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. and Horng et al. and further in view of Matsushita et al. (4,841,190) and Lace (4,074,157).

Regarding claim 9, the motor of Miyazawa et al. modified by Horng et al includes all of the limitations of the claimed invention except for said stator core and winding are substantially encapsulated in a thermoplastic encapsulation material formed with a generally annular skirt projecting radially outwardly from said encapsulated stator core, said skirt in close proximity with said rotor to define an exterior rotor/stator junction, said skirt having a beveled edge for deflecting water away from said junction thereby to inhibit entry of water between said rotor and stator.

Matsushita et al. encapsulate the stator core and winding in a thermoplastic encapsulation material for the purpose of increasing the efficiency.

Lace teaches to form a generally annular skirt (31) projecting radially outwardly from the stator core, said skirt in close proximity with said rotor to define an exterior rotor/stator junction, said skirt having a beveled edge (58) for deflecting water away from said junction thereby to inhibit entry of water between said rotor and stator for the purpose of enclosing the motor.

Since Miyazawa et al., Horng et al., Matsushita et al., and Lace are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to encapsulate the stator and form with a skirt as respectively taught by Matsushita et al. and Lace for the purposes discussed above.

Regarding claim 16, it is noted that Lace also shows all of the limitations of the claimed invention.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al., Horng et al., Matsushita et al., and Lace and further in view of Spring et al. (3,609,423).

Regarding claim 14, the motor of Miyazawa et al. modified by Horng et al., Matsushita et al., and Lace includes all of the limitations of the claimed invention including a bronze bearing except for a slit magnetic tube.

Spring et al. make the magnetic tube with a slit for the purpose of reducing eddy current.

Since Miyazawa et al., Horng et al., Matsushita et al., Lace, and Spring et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the tube with a slit as taught by Spring et al. for the purpose discussed above.

Allowable Subject Matter

8. Claims 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Information on How to Contact USPTO

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DANGLE
PRIMARY EXAMINER

10/15/03

